

Evaluation Proposal In-Stream

Applicants must respond to the following items. The local citizen and technical advisory groups will use the evaluation proposal to evaluate your project. Applicants should contact their lead entity for additional information that may be required.

Up to eight pages may be submitted for each project evaluation proposal.

(SUBMIT INFORMATION VIA PRISM ATTACHMENT)

1. BACKGROUND

Describe the fish resources, the current habitat conditions, and other current and historic factors important to understanding this project. Be specific—avoid general statements. When possible, document your sources of information by citing specific studies and reports. Discuss the need for this project and how it fits in with your regional recovery plan or local lead entity strategy.

Due to extensive land use in this basin, fisheries populations are still in decline. Higher than normal sediment loading rates and gravel movement limit spawning survival in the Skokomish South Fork as spawning beds are alternately buried or scoured out. Freshwater life history survival rates are low in the Skokomish River system due to low summer flows and high water temperatures. For at least the last three years, this portion of the South Fork has been cut-off from the downstream Main Stem and saltwater estuary due to a ½ mile gravel plug forming just upstream of the North Fork-South Fork confluence in the late summer and early fall. Juvenile salmon are trapped by the thousands as surface flow recedes, cutting off access to downstream areas and spring-fed side channels. Higher stream temperatures throughout the system causes heat stress for summer rearing fish that cannot reach cooler, spring-fed side channels. Removal of LWD by peak flow flushing and past human activity has reduced habitat quality and complexity. In fluctuating flow conditions, fish seek refuge in temporarily reconnected side channels, only to be cut off from main channels when flow recedes.

These findings are substantiated by field observations by Skokomish Tribal Fisheries and Mason Conservation District staff, the 1975 WDFW Stream Catalog (limiting factors), and the Hood Canal Coordinating Council Skokomish Salmon Habitat Recovery Strategy (3-2004 and 9-2005).

2. PROBLEM STATEMENT

State the nature, source, and extent of the problem that this project will address and help solve. Address the primary causes of the problem, not just the symptoms. When possible, document your sources of information by citing specific studies and reports.

Five-Mile Creek is a perennial, spring fed tributary that flows into the Skokomish South Fork about 1 mile upstream of the Vance Creek Confluence. This stream offers pristine spawning and rearing habitat, cool spring waters, and high-flow refuge to spawning and juvenile salmon. Over the past several years, this confluence has been blocked to fish passage by excess sediment along the right bank of the South Fork. However, in isolated areas in the vicinity of this confluence, short channel sections and deep pools are formed by large woody debris resting along the right bank. Since these large woody debris formations are not continuous, they alone are not sufficient to maintain the channel opening from 5 Mile Creek into the Skokomish South Fork during summer low flows. This has been condition has been confirmed and photographed by Mason Conservation District and Natural Resources Conservation Service staff.

3. PROJECT OBJECTIVES

List the project's objectives. Objectives are statements of specific outcomes that typically can be measured or quantified over time. Objectives are more specific than goals (visions of the desired future condition) and less specific than tasks (the specific steps that would be taken to accomplish each of the objectives). For

example, the objectives of an in-stream habitat project might be to increase channel complexity, to provide cover, to capture sediment, to reduce erosion, to create pools, and to reconnect side-channels or floodplain. Explain how achieving the objectives will address and help solve the problem identified in #2 above.

The project objective is to maintain perennial fish access between the mouth of 5 Mile Creek and the Skokomish South Fork, especially during summer low flow periods, and also to improve the stream habitat along the right bank of the Skokomish South Fork at this location by adding more large woody debris.

4. PROJECT APPROACH

- a. Briefly describe the geographic setting of the project (marine nearshore, estuary, main stem, tributary, etc) and the life cycle stage(s) affected: Project is located at a critical river main stem and tributary junction. Life stages affected include spawning adult, alevin, and juvenile rearing fish.
- b. List the individuals and methods used to identify the project and its location: The landowner, Charles Toal, who is also a Washington Department of Ecology employee, identified this location. Conservation District and Natural Resources Conservation Service staff developed the methods, with technical review by Skokomish Fisheries staff.
- c. If project includes an acquisition element, then briefly describe the extent to which habitat to be acquired is currently fully functioning and/or needs restoration; the timeframe in which responses or improvements in habitat functioning are expected; and the continuity of the proposed acquisition with other protected or functioning habitat in the reach.
- d. Describe the project design and how it will be implemented. This project features four engineered logjams that will be installed along the riverbank. This project will be constructed during summer extreme low flow conditions. The logjams will be anchored by buried piles, which will be isolated by cofferdams from any surrounding surface waters. During summer low flows, it is common for this area to be isolated from both 5 Mile Creek and the Skokomish South Fork.
- e. Explain how the project's cost estimates were determined: The project cost estimate was developed by estimating machine and labor time required to construct the project as designed, and by calculating total market price for the large woody debris and hardware required by the design.
- f. Describe other approaches and opportunities that were considered to achieve the project's objectives. Describe why this project will be successful in meeting the objectives identified: Other approaches included limited gravel removal and a lighter wood installation. The engineered logjams were selected as this installation will survive extreme high flows and maintain the channel connection without future excavation and with minor maintenance compared to the other options.
- g. List project partners. When appropriate, include a letter from each participating partner briefly outlining its role and contribution to the project (see sample form in section 2): This project has been awarded a Wildlife Habitat Improvement Program grant by NRCS and a Community Salmon Fund Grant. This project has been engineered and designed by Mason Conservation District under contract with NRCS.
- h. List all landowner names. Include a signed form from each landowner acknowledging their property is proposed for SRFB funding consideration (see sample form in section 2): The landowners include Charles Toal, Justin Baze and Ronald Twiss. These landowners have already signed agreements for the grants mentioned above.
- i. Describe the long-term stewardship and maintenance obligations of the project. Projects should be consistent with habitat forming processes in the watershed, requiring reduced up-keep and long-term maintenance over time: This project proposes a five year monitoring period, with as-built drawings and cross-section surveys within the first two years. The landowner is also a professor at Evergreen State College, and intends to use this site for class field trips and a subject for student research projects. Students from Hood Canal School will monitor stream temperatures with the assistance of Skokomish Fisheries staff.
- j. When known, identify the staff, consultants, and subcontractors that will be designing and implementing the project, including their names, qualifications, roles and responsibilities. If not yet

known, describe the selection process: This project was designed by Rich Geiger, Mason Conservation District Engineer, who also designed and supervised construction of the Jimmycomelately Creek Realignment. He has been designing and installing stream projects, including several in the Skokomish River, for about 10 years. This design was reviewed and approved by the State Engineer for the Washington State Natural Resource Conservation Service.

- k. Describe the consequences of not conducting this project at this time. For acquisition projects, also describe the current level and imminence of risk to habitat, and provide the current zoning and Shoreline Master Plan designation: The consequences of not funding this project at this time is the probable loss of over \$59,000 in federal matching funds already awarded to the project.

5. TASKS AND TIME SCHEDULE

List and describe the major tasks and time schedule you will use to complete the project. Describe your experience managing this type of project: This project is designed and has been permitted by WDFW. The Natural Resource Conservation Service is currently securing federal permits and conducting a federal cultural resources review.

6. CONSTRAINTS AND UNCERTAINTIES

State any known constraints or uncertainties that may hinder successful completion of the project. Identify any possible problems, delays, or unanticipated expenses associated with project implementation. Explain how you will address these constraints and the likelihood of success: The only potential problem would be unforeseen delays in securing federal permits by NRCS and unusual inflation in construction expenses. As design is complete and already permitted by WDFW, the probability of securing federal permits by NRCS before summer, 2008 is very high. The landowner and project sponsors will seek donations of large woody debris until construction and hardware to minimize project costs.